



INTRODUCTION

From its inception, EnSight has been used extensively to postprocess time-varying or transient data. In many cases, dynamic phenomena can only be understood through interactive exploration. The Solution Time Quick Interaction area provides the interface for working with transient data and provides comprehensive control over time handling.

BASIC OPERATION

EnSight provides two ways to work with transient data. By default, time is presented as a series of discrete steps running from zero to the total number of steps minus one. However, you can also present time based on the actual simulation time values found in your results data. The presentation mode is controlled by the Time As pulldown menu. In the dialog below, Time As is set to Step and time is presented as discrete steps running from 0 to 159 (160 total steps). The simulation time (as reported in the top line of the dialog) runs from 1.0 to 160.0.

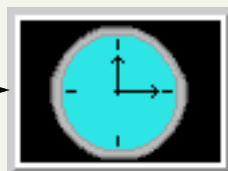
The current time range is displayed in the Beg and End fields with the current time step shown in the Cur field. You can modify the time range displayed in the slider by editing the Beg and/or End fields (remember to press return). You can change the current time step by editing the Cur field (press return), manipulating the slider, or clicking the left/right slider arrows. Clicking Reset Time Range will reset Beg and End to the full range.

Time scaling and stepping (as manipulated through the slider bar and Beg, Cur, and End fields) can either be Discrete or Continuous. If scaling is Discrete, only your actual time steps as written in the results data can be visualized. In addition, the Beg, Cur, and End fields can only be set to integer values (if Time As is set to Step and Scale Type is Discrete) or actual simulation times represented in your results data (if Time As is set to Sim. Time). If scaling is Continuous, you can display results between your actual output time steps (all variable values are linearly interpolated between the two surrounding time steps). Note that if your mesh is changing over time (either set of elements or element connectivity) you cannot display results continuously.

When you manipulate the slider or change the Cur field, EnSight will perform all tasks necessary to correctly display the new time step in the Graphics Window. Depending on the size of the dataset and the number of additional parts you have created, this may take a significant amount of time. If you wish to create an on-screen animation of your results, use the **Flipbook** facility (click Animate Over Time to quickly jump to the Flipbook Quick Interaction area).

To use the Solution Time Quick Interaction area:

1. Click the **Solution Time** icon in the **Feature Icon bar**.



2. Make changes as desired.

The slider bar lets you step through time. Grab the slider and dial to the desired time or click the left/right slider arrows to increment (the increment can be set by changing the Step Arrow Increment field).

The Beg and End fields control the available time range (and also the range of the slider action). The Cur field sets the current time step. Enter new values and press return to update.

Set Scale Type to Discrete or Continuous (see above for details).

Click to reset the Beg/End fields back to the default (full time range).

Click to open the Flipbook Animation Quick Interaction area.

Set the number of time cycles in the time range. For example, setting it to 2 changes End to 318.

Set the step increment size for the slider arrows. Must be an integer if Scale Type is Discrete.

Set Time As to Step or Sim. Time (see above for details).



SEE ALSO

[How To Load Transient Data](#), [How To Animate Transient Data](#)

User Manual: [Solution Time](#)